

## SUBMERSIBLE WATER TOY AND RELATED METHOD OF USE

### CROSS-REFERENCE TO RELATED APPLICATIONS

**[0001]** This application claims the benefit of U.S. Provisional Application No. 60/461,569, filed on April 9, 2003.

### FIELD OF THE INVENTION

**[0002]** The present invention relates generally to aquatic devices. More particularly, the present invention relates to a submersible water toy for buoyantly support a portion of the user's weight when used in a pool, ocean, lake or other body of water.

### BACKGROUND OF THE INVENTION

**[0003]** Various types of competition and recreation relating to stunt-based activities have recently experienced increased popularity. While this popularity is not age limited, most of the popularity has been with children and young adults. These competitions and recreational activities include both aquatic activities and land based activities. Participants in these activities generally ride on equipment and perform stunts of various difficulty based on their experience level.

**[0004]** The aquatic competitions and recreational activities include water skiing. As is well known, the water skier is pulled behind a boat and performs various maneuvers ranging from passing back and forth across the

boat wake to flips and jumps. A related aquatic activity involves the use of a knee-board.

**[0005]** The land based activities include snow skiing and snow boarding. The skiers and boards use gravity to perform tricks on snow covered hills. The land based activities also include skate boarding and roller blading that involve aerial and other stunts.

**[0006]** While all of these known activities have appreciated a significant increase in popularity, they are all associated with limitations and/or disadvantages insofar as the present invention is concerned. For example, many of the known activities require adult participation, such as in the form of boat driving for water skiing and knee boarding. Other of the activities require expensive equipment. Still yet other activities require mountains or sizable hills and snow conditions.

**[0007]** Thus, it remains a need in the art to provide a submersible water toy for stunt based activities that overcomes the disadvantages and limitations associated with the known prior art.

## SUMMARY OF THE INVENTION

**[0008]** It is a general object of the present invention to provide a submersible water toy for stunt based activities that overcomes the disadvantages and limitations associated with known equipment for stunt based activities, including but not limited to those disadvantages and limitations discussed above.

**[0009]** It is another object of the present invention to provide a submersible water toy for stunt based activities that is relatively inexpensive to manufacture.

**[0010]** It is another object of the present invention to provide a submersible water toy for stunt based activities that can be used by a single person.

**[0011]** It is another object of the present invention to provide a submersible water toy for stunt based activities that allows the user to perform stunts of varying difficulty.

**[0012]** It is another object of the present invention to provide a submersible water toy for stunt based activities that buoyantly supports a portion of the user's weight when used in a pool.

**[0013]** It is a more particular object of the present invention to provide a submersible water toy for stunt based activities that is constructed primarily of foam.

**[0014]** In one particular form, the present invention provides a submersible water toy for stunt based activities. The submersible water toy includes a main body portion constructed of a buoyant material. The main body portion defines an upper deck surface upon which the user can stand. The buoyancy of the main body portion is such that at least a portion of the user's weight is supported when used in a pool or other body of water.

**[0015]** Further areas of applicability of the present invention will become apparent from the detailed description provided hereinafter. It should be

understood that the detailed description and specific examples, while indicating the preferred embodiment of the invention, are intended for purposes of illustration only and are not intended to limit the scope of the invention.

#### BRIEF DESCRIPTION OF THE DRAWINGS

**[0016]** The present invention will become more fully understood from the detailed description and the accompanying drawings, wherein:

**[0017]** Figure 1 is an environmental view of a submersible water toy constructed in accordance with the teachings of a preferred embodiment of the present invention, the submersible water toy shown operatively associated in a pool and with a user.

**[0018]** Figure 2 is an enlarged perspective view of the submersible water toy of Figure 1.

**[0019]** Figure 3 is a cross-sectional view taken along the line 3-3 of Figure 2.

**[0020]** Figure 4 is a cross-sectional view similar to Figure 3, illustrating an alternative construction for the submersible water toy of the present invention.

**[0021]** Figure 5 is a side view of a submersible water toy constructed in accordance with the teachings of a second alternative embodiment of the present invention.

**[0022]** Figure 6 is a side view of a submersible water toy constructed in accordance with the teachings of a third alternative embodiment of the present invention.

**[0023]** Figure 7 is a environmental view of a submersible water toy constructed in accordance with the teachings of a fourth alternative embodiment of the present invention, the submersible water toy shown operatively associated in a pool and with a user.

**[0024]** Figure 8 is a environmental view of a submersible water toy constructed in accordance with the teachings of a fifth alternative embodiment of the present invention, the submersible water toy shown operatively associated in a pool and with a user.

#### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

**[0025]** The following description of the preferred embodiment(s) is merely exemplary in nature and is in no way intended to limit the invention, its application, or uses.

**[0026]** With initial reference to the environmental view of Figure 1, a submersible water toy constructed in accordance with the teachings of a preferred embodiment of the present invention is illustrated and generally identified at reference 10. The water toy 10 is shown submersed in a pool of water 12. It will be understood by those skilled in the art that the teachings of the present invention are equally applicable for oceans, lakes or other bodies of water. A user 14 is shown positioned on the submersible water toy 10.

**[0027]** With continued reference to the environmental view of Figure 1 and additional reference to Figures 2 and 3, the submersible water toy 10 of the present invention will be further described. The submersible water toy 10 may

include a core or main body portion 16. The core 16 may be constructed of a foam material. In one particular application, the core 16 is constructed of ethylene vinyl acetate. In other applications, the core can be constructed of expanded polystyrene foam. Those skilled in the art will readily appreciate that various other types of materials can be employed within the scope of the present invention.

**[0028]** The main body portion 16 is shown to include a central section or portion 18 having an upper surface 20 and a lower surface 22. The upper surface 20 defines a deck portion for directly supporting the feet of the user 14 (see Figure 1, for example). The lower surface 22 is buoyantly supported by the water.

**[0029]** As most particularly shown in Figure 2, the submersible water toy 10 may include cantilevered front and rear ends 24 and 26 which angle upwardly as they extend from the center portion 18. These angled front and rear ends 24 and 26 provide alternate surfaces for engaging the feet of the user 14 as the user performs various stunts. The submersible water toy 10 of the present invention may be alternatively constructed without these angled front and rear ends 24 and 26.

**[0030]** In one particular application, the submersible water toy 10 has an ethylene vinyl acetate core and a length of approximately 31 inches, a width of approximately 8 inches and a thickness of approximately 2 inches. In another particular application, the submersible water toy 10 has an expanded polystyrene core and a length of 29 inches, a width of 8 inches and a thickness of 2 inches.

These dimensions, however, are merely exemplary. In this regard, the dimensions can be modified depending on factors including but not limited to the buoyancy of the particular material incorporated to construct the toy; the weight of the intended user; and the particular stunts or tricks intended to be performed on the toy. Based on all these factors, an optimal design of the submersible water toy 10 provides enough buoyancy to support at least a portion of the user's weight. As shown in the environmental view, the user 14 is supported while performing a stunt such that the water level is at his chest. In most applications, the buoyancy of the submersible water toy 10 is low enough that larger children and adults will be able to pin the toy 10 to the pool bottom while in shallow water. The size of the toy 10 can be modified to accommodate different user weights. Without the user 14, the toy will float to the surface of the pool 12 for easy retrieval.

**[0031]** Turning now to the cross-sectional view of Figure 4, a first alternative embodiment of a submersible water toy constructed in accordance with the teachings of the present invention is illustrated and generally identified at reference character 110. The submersible water toy 110 is similarly constructed to the toy 10 of the preferred embodiment to include a foam core 16. Distinct from the preferred embodiment, the submersible water toy 110 additionally includes a plastic shell 112. The plastic shell 112 provides additional strength and increases the useful life of the toy 110. The remainder of the details of the submersible water toy 110 will be understood to be similar to those details described above in connection with the preferred embodiment.

**[0032]** Turning now to Figure 5, a second alternative embodiment of a submersible water toy constructed in accordance with the teachings of the present invention is illustrated and generally identified at reference character 210. Again, the submersible water toy 210 is similarly constructed to the toy 10 of the preferred embodiment to include a foam core 16. Distinct from the preferred embodiment, the submersible water toy 110 additionally includes front and rear ends 112 and 114 that inwardly and upwardly curve as they extend from the main body portion 18. The curved ends 112 and 114 define convex surfaces 116 and 118, respectively, for opposing the sides of the feet of the user 10. These surfaces may facilitate the performance of particular tricks or stunts by the user 10. The remainder of the details of the submersible water toy 210 will be understood to be similar to those details described above in connection with the preferred embodiment.

**[0033]** Turning now to Figure 6, a third alternative embodiment of a submersible water toy constructed in accordance with the teachings of the present invention is illustrated and generally identified at reference character 310. In this particular embodiment, the submersible water toy 310 of the present invention is modified to be able to readily accommodate users of various sizes. As noted above, one critical aspect of the present invention allows the user to be suitably supported within the water for the performance of tricks or stunts. The submersible water toy 310 includes a main body portion 18 that is similar to that described above. The submersible water toy 310 further includes a plurality of buoyant panels 312 that may be selectively attached to the main body portion 18



depending on the particular buoyancy required of the toy 310. In the embodiment illustrated, the submersible water toy 310 is shown to include two (2) panels 312. Those skilled in the art will appreciate that any particular number of panels may be incorporated within the scope of the present invention. The panels 312 are removably secured to the main body portion 18 with elastic bands 314. Alternative manners of releasably attaching the panels 312 may also be employed.

**[0034]** Turning now to Figure 7, a fourth alternative embodiment of a submersible water toy constructed in accordance with the teachings of the present invention is illustrated and generally identified at reference character 410. In this particular embodiment, the submersible water toy 410 is shown to be generally circular or disk-shaped.

**[0035]** Turning now to Figure 8, a fifth alternative embodiment of a submersible water toy constructed in accordance with the teachings of the present invention is illustrated and generally identified at reference character 510. In this particular embodiment, the submersible water toy 510 is shown to be generally star-shaped. In the environmental view illustrated, the user is shown performing a hand plant. It will be clear to those skilled in the art that the submersible water toy 510 and the other embodiments disclosed herein can be used for both standing stunts and hand stunts.

**[0036]** While not particularly shown in the drawings, it will be understood by those skilled in the art that the disclosed embodiments may be modified within the scope of the present invention to include various features.

For example, the embodiments may be modified to include straps or handles for the user's hands or feet. Examples of such straps and handles for other types of stunt performing equipment are shown in U.S. Patent Nos. 4,619,619; 4,028,761; and 4,929,208, which are hereby incorporated by reference as if fully set forth herein. The upper deck may also be constructed to include a high friction surface to promote grip. Furthermore, the bottom surface of the various embodiments can be formed to include a fin or other structure to provide additional stability.

**[0037]** The previously described embodiments may also be modified to include an inflatable bladder. Additional air may be introduced into the inflatable bladder to increase the buoyancy of the toy for a particular user or a particular stunt. In certain applications, the inflatable bladder may substantially or completely replace the foam core and thereby provide the main source of buoyancy.

**[0038]** The previously described embodiments may also be modified to include a motor for propelling the toy. One suitable motor is conventionally used to propel scuba divers. The motor may be secured to the toy in a manner well known in the art.

**[0039]** The description of the invention is merely exemplary in nature and, thus, variations that do not depart from the gist of the invention are intended to be within the scope of the invention. Such variations are not to be regarded as a departure from the spirit and scope of the invention.